GA1.13:IMTEC-88-56

United States General Accounting Office

GAO

Report to the Chairman, Committee on the Budget, U.S. Senate

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23

September 1988

ADP SYSTEMS

Status of SSA's Modernization Efforts

GAO/IMTEC-88-56

GAO

United States
General Accounting Office
Washington, D.C. 20548

Information Management and
Technology Division

B-226516

September 29, 1988

The Honorable Lawton Chiles
Chairman, Committee on the Budget
United States Senate

Dear Mr. Chairman:

In response to your June 7, 1988, letter, we have reviewed the Social Security Administration's (SSA) actions to refocus its computer systems modernization efforts. Your letter noted that over the past 6 years large sums of money had been provided to the agency for its Systems Modernization Plan (SMP), but that SSA has experienced difficulty implementing projects in key areas of the plan. The letter also indicated that it is difficult to understand the results of SMP to date and its relationship to new projects included in the agency's recently issued strategic plan. As agreed with your office, we concentrated our review on determining the (1) status of two key areas of the SMP—software redesign and data base integration—and plans for addressing these areas in the future, (2) relationship between the strategic plan's projects and key areas of SMP, (3) impact that new projects included in the strategic plan may have on the agency's computer systems, and (4) adequacy of the comprehensive automated data processing (ADP) plan required by the 1987 Senate Appropriations Committee report language.[1]

SSA has scaled back its efforts in the software redesign and data base integration areas in order to complete those projects that it believes would allow it to achieve the greatest benefits from its automated systems. The agency has concentrated on redesigning software for the Retirement, Survivors, and Disability Insurance Programs, part of the program benefits project, and plans to complete redesigning the majority of this software by late 1990 and the remainder by late 1992. The balance of the program benefits project and three of eight other SMP software projects will be addressed under SSA's new strategic planning process. The other SMP software projects are scheduled to be completed or pilot-tested in the 1989 to 1990 time frame, except for one that has been canceled.

The data base integration objectives have been refocused to provide on-line access to data files by converting the files from tape to disk storage and installing a data base management system for the on-line storage

[1]Senate Report No. 100-399, June 23, 1988.

and retrieval of transaction data. The agency plans to achieve these objectives with national installation of the data base system in February 1989. The agency is reassessing its approach to achieving the remaining data base integration objectives of reducing data redundancy and improving data integrity and consistency, and plans to obtain assessments from outside experts on the future direction of data base integration.

Because SSA is in the early stages of a new long-term strategic planning process, it is too early to determine the relationship between the agency-wide strategic plan and SMP, and the impact strategic plan projects may have on computer capacity and systems design. The agency developed the planning process to respond to concerns its consultants and we raised about its planning, and to guide its operations in the future. The planning process includes multilevel planning for new projects, and contractor assistance in (1) evaluating and selecting systems and organizational processes to support the strategic plan and (2) reviewing and recommending technical approaches for completing the SMP and implementing the strategic plan. SSA plans to complete the new project planning in late 1988, but the contracted efforts will take at least 2 years to complete.

Until all the planning activities reach a point at which new operational ADP plans can be developed to implement the strategic plan, SSA is using an interim operational ADP plan that includes SMP projects, as well as some strategic plan projects. While an agency contractor reported in March 1988 that the interim ADP plan is not well integrated and does not reflect current agency priorities, SSA officials told us that the areas needing improvement will be addressed under the new strategic planning process. Until SSA addresses problems identified with the interim plan, it has no assurance that its ADP initiatives over the next 2 years will be executed as effectively and efficiently as possible. Further, until all planning activities supporting the agency-wide strategic plan are further developed, neither SSA nor we will be able to determine what priority and resource levels should be devoted to completing the SMP initiatives, as well as the new initiatives.

Finally, at the time of our review, SSA had not yet completed the comprehensive ADP plan required by the 1987 Senate Appropriations Committee report. Thus we were unable to review the required plan and address it in this report.

Background

In 1982, SSA began a $479 million, 5-year effort under the SMP to modernize computer systems it characterized as obsolete, difficult to maintain, and vulnerable to failure. The goals of SMP were to build and maintain a modern computer environment that would provide more accurate and quicker service to clients by improving software, computer equipment, and telecommunications, and by implementing an integrated data base.

By 1987, SSA had made some progress under the plan by redesigning portions of its software, acquiring computer equipment, expanding its telecommunications network, and improving access to its data bases. However, the agency had problems meeting SMP's original goals for software redesign and data base integration. The agency believed that improvements in these two areas would contribute to the successful implementation of additional client services that the agency might want to offer in the future. In three reports we noted problems in software redesign and data base integration, such as delays in completing software standards and functional requirements, and the need to validate the underlying requirements of SSA's data base integration strategy, that were contributing to the difficulty of meeting original objectives.[2] We also found that SSA had underestimated the amount of time and resources required to modernize the systems. We recommended that the agency reduce the scope of its modernization effort to address the most critical system deficiencies. In a fourth report, we stated that SSA needed an agency-wide long-range plan to guide its systems modernization efforts.[4]

In response to our concerns, SSA notified the House and Senate Appropriations Committees in June 1987 that it was refocusing and narrowing the scope of its modernization activities to concentrate on areas of SMP that were delayed, such as software redesign and data base integration. At that time, SSA also stated it had begun to develop an agency-wide strategic plan to provide overall guidance for all organizational activities, including computer system modernization. In March and April 1988, SSA reported to the House and Senate Appropriations Committees

[2]Software Systems: SSA Encountering Significant Delays in its Claims Modernization Project (GAO/IMTEC-87-8, Dec. 22, 1986).

ADP Systems: SSA's Modernization Efforts Need Redirection (GAO/IMTEC-87-16, Apr. 10, 1987).

Data Base Systems: Observations on Social Security's Data Base Integration Program (GAO/IMTEC-88-19, Jan. 11, 1988).

[4]Social Security Administration: Stable Leadership and Better Management Needed to Improve Effectiveness (GAO/HRD-87-39, Mar. 18, 1987).

respectively on the status of its efforts to review and refocus systems modernization activities. The agency reported that it had scaled back SMP, focusing on areas that would provide the most potential for improving service to the public and would use a building block approach for completing these projects. The agency also reported that the incomplete SMP projects had been subsumed under a new agency-wide strategic plan that would guide all agency programs until the year 2000 and beyond.

The agency-wide strategic plan, issued in January 1988 and called 2000, A Strategic Plan, includes a planning framework and outlines the types of customer service that the agency will be expected to deliver by the year 2000. The strategic plan also includes (1) a list of 17 new service related projects (SSA has since added an 18th project), some of which are in progress, others of which will start in the near future; and (2) 8 interdependent activities that are intended to shape an integrated, efficient, and unified SSA process to achieving its strategic goals. (See app. I for a list of the 18 projects and 8 interdependent activities.)

Status of SMP Software Redesign and Data Base Integration Efforts

In notifying the House and Senate Appropriations Committees of the agency's plans to refocus SMP, SSA's Commissioner proposed (1) narrowing the scope of the software redesign and data base integration projects in order to complete them and (2) obtaining an independent assessment of the agency's future direction for data base integration. The Commissioner acknowledged that the software redesign and data base integration efforts had not progressed as quickly as planned and that completing these projects would allow SSA to concentrate on achieving the greatest benefit from its automated systems.

Concerning software redesign, SMP's largest software project—program benefits—included the software redesign of the Retirement, Survivors, and Disability Insurance Programs and the Supplemental Security Income Program. At a July 29, 1988, briefing, SSA's Senior Executive Officer, Associate Commissioner for the Office of Systems Integration, and the Acting Associate Deputy Commissioner for Systems Support, confirmed the Commissioner's refocusing announcement of June 1987 that the SMP objectives for the program benefits software redesign had been narrowed to redesigning only the retirement program software. The agency's current schedule calls for completing the majority of retirement software redesign in late 1990, with the remainder scheduled for completion in late 1992. The schedule for the Supplemental Security Income software redesign will be addressed under SSA's new strategic planning process. SMP also included eight other software projects that

addressed other aspects of SSA's operations. (See app. II for a complete list of SMP software projects and their status.) Of these eight software projects,

- three have been included as projects under the agency strategic plan,
- three are scheduled to be completed between 1989 and 1990,
- one is scheduled for an early pilot test in 1990, and
- one has been canceled.

The agency's original SMP objectives for the data base integration project were to convert its data storage from tape to disk, upgrade its data base management and access methods to provide immediate access to data, reduce data redundancies, and improve data integrity and consistency. At the July 29 briefing, the SSA officials also told us that the agency had narrowed its SMP data base integration objectives to those objectives to be achieved with the national installation of a data base system in February 1989. This system provides immediate access to the agency's data files through the conversion of files from tape to disk and uses a data base management system for storing and retrieving transaction files. We reported in April 1987 and in January 1988 that the agency was having difficulty meeting more complex data base integration objectives that would reduce data redundancies and improve the integrity and consistency of data, and that it should reassess its approach.[1]

In March 1988, an SSA consultant reported that much remained to be done to achieve a modern integrated data base. For instance, the contractor reported that the agency has still to complete some fundamental activities in data base integration, such as data modeling and choosing between system architectures. To address these concerns, SSA is now undertaking several tasks, including a reassessment of alternative data base architectures, an analysis of the project's data requirements, and the development of transition studies and plans. The tasks are scheduled to be completed over the next 2 years. Once these tasks are complete, the agency could be in a position to restate future objectives and milestones related to reducing data redundancies and improving data integration and consistency.

[1]GAO/IMTEC-87-16, Apr. 10, 1987, and GAO/IMTEC-88-19, Jan. 11, 1988.

Relationship Between New Strategic Projects and Key Areas of SMP Uncertain, but Assessments Underway

The relationship between the new strategic projects and key areas of SMP cannot be determined at this time because the agency is in the early stages of three parallel planning efforts that will address the organizational and technical approach to implementing the new projects and completing the SMP projects. These three efforts include (1) multi-level planning for the strategic plan's 18 new projects, (2) planning for the strategic plan's 8 interdependent activities, and (3) assessing SMP's relationship to the agency-wide strategic plan. SSA officials anticipate completing the plans for the 18 projects in the latter part of 1988, and the other two efforts are scheduled to be completed over the next 2 years.

Planning for the 18 New Projects

The Director and the Executive Assistant of the Office of Strategic Planning, who are responsible for agency-wide long-range planning, and the Special Assistant to the Commissioner for Systems, said that the agency was following a multilevel approach to planning for the 18 new projects. The approach, which includes moving from high-level conceptual plans to more detailed operational plans, includes:

- strategic implementation plans—a global view of the 18 projects;
- tactical plans—a more detailed 5-year plan for each project that includes a list of project activities, milestones, dependencies, and budget estimates; and
- operational plans—the most detailed 2-year plan for each project, which will include any required computer resources.

The officials said that the strategic implementation plans for the 18 projects had been completed and the agency was currently developing tactical plans for each project. When the tactical plans are completed, they will be reviewed by all of SSA's Deputy Commissioners and, if approved, the agency will ensure that resources are committed to them. After that, the agency will develop operational plans for each approved activity, laying out specific resource requirements for fiscal years 1989 and 1990.

The Director, Office of Strategic Planning, who is responsible for planning for the 18 projects, said that an important factor was that the implementation plans for the new strategic projects are flexible. For instance, a task force established to study one of the projects concluded that the project should not be pursued at this time, but that it should be looked at when the technology to support this project is further developed. The Director said that a task force would be formed for each project to review the costs and benefits of project implementation.

Initial Planning for Eight Interdependent Activities Begun

The agency strategic plan includes eight interdependent activities that are intended to shape an integrated, efficient, and unified SSA process for achieving the plan's goals. For example, developing plans for implementing and monitoring each strategic initiative is one of the eight interdependent activities. There are three phases in the planning for the eight interdependent activities:

- complete basic planning activities that SSA believes are prerequisites to selecting the most cost-effective design alternatives for computer systems,
- identifying and selecting alternative designs for achieving operational requirements, and
- selecting the operational processes and resources required for systems development of the design selected.

SSA has contracted with a consultant to assist the Office of Strategic Planning over the next 2 years to complete the first phase. The other planning phases for the eight interdependent activities are to begin after the first phase is complete.

Consultant Assessing SMP and the Agency Strategic Plan

In addition to the planning process for the 18 new projects and eight interdependent activities, SSA has also contracted with the National Academy of Sciences. The Academy will review and evaluate the status of SMP, advise the agency on optimum technical approaches needed to complete SMP, and review the agency strategic plan and recommend technical approaches to implementing it. The Academy intends to report its findings to SSA over the next 2 years, with a final report in August 1990.

The strategic plan recognizes that completing SMP will be important for the agency in achieving its goals during the coming years. However, the planning efforts for the various projects and activities outlined in the strategic plan have not yet reached the level where the ADP portion of the planning process can determine the relationship between the new projects and key SMP projects.

Total Impact of New Strategic Projects on Agency Computer Systems Is Unknown

In an effort to determine the impact of the 18 new projects included in the agency strategic plan on agency computer systems, SSA asked its systems integration and management contractor, who is providing expertise to the agency on its overall systems development efforts, to review the strategic implementation plans. In May 1988, the contractor reported that most of the projects would have an impact on the computer systems. The contractor concluded that:

- The development and implementation efforts for a majority of the new projects will each result in one or more ADP projects. Individually and cumulatively, the ADP projects may have a significant impact on the management and schedule of current initiatives.
- The strategic plan assertion that the new projects "can begin immediately, independent of each other and independent of projects in the second category" (interdependent projects) is not correct. Few projects are either independent of each other or of the current modernization effort.
- The new projects do not appear to build upon the base of existing hardware and software architectures that are in place at SSA.
- In cases where new projects have a strong relationship to existing systems and/or planned projects, there is little specific reference to dependency or transition planning.

On the basis of our review of the report, the contractor properly identified projects that appear to require computer support. For example, among the projects identified by the contractor as needing computer support were (1) automatic entitlement, (2) electronic storage and retrieval of documents, and (3) payments via electronic funds transfer.

In the July 29 briefing, SSA officials said that work on 5 of the 18 new projects is underway and that these projects will require ADP support. These five are (1) automated data exchange, (2) enumeration at birth, (3) expanded telephone service, (4) improved management and work environment, and (5) periodic benefit estimates. While SSA officials agreed that some of the other new projects will require computer systems support, they said that the contractor's assessment of the required support for the other projects was premature. Specifically, SSA officials said that the agency will know what computer systems support is needed for all projects when the detailed planning for them has been completed.

Problems Identified in the Interim Operational ADP Plan

Because SSA is in the early stages of implementing its new agency-wide planning processes, an agency official told us, an interim operational ADP plan will guide agency computer systems efforts until new operational plans are completed. However, SSA's systems integration and management contractor reported in March 1988 that the interim operational ADP planning process needs improvements in several areas for it to be effective, and stated that these improvements are essential to the effective and efficient completion of SSA's systems modernization efforts.

The contractor pointed out that the agency's interim operational ADP plan has most of the essential planning processes in place with varying levels of effectiveness. However, information does not flow regularly, accurately, or in a timely manner from one process to another, and as a result, the interim plan is not integrated into a cohesive whole. The contractor found that SSA's existing interim operational ADP plan focused too narrowly on ADP projects and excluded other types of projects that could be considered systems initiatives under a broader view of ADP that included all information technologies. Under that view, such projects as the development of local area networks would be included in the ADP plan. The contractor also found that while the interim operational ADP plan's intent is to reflect current priorities, this is often not the case.

The report recommendations included defining and implementing strategic, tactical, and operational plans and control processes to improve the interim operational ADP plan. In the July 29, 1988, briefing, SSA officials told us that these recommendations were being addressed as part of the agency's new strategic planning process, rather than in the interim operational ADP plan.

Conclusions

SSA has scaled back its earlier SMP objectives in software redesign and data base integration; it has made progress in completing the scaled-back projects, scheduled major portions of some projects for completion by 1990 and others for later years; and it is reassessing its future needs and approaches to achieving other SMP software redesign and data base integration objectives. SSA has also developed a long-range strategic planning process consisting of three parallel efforts to guide its operations in the future: planning for 18 new projects, planning for 8 interdependent projects, and evaluating how to implement both the remaining SMP activities and the strategic plan activities.

The agency's actions to scale back its efforts under SMP and develop an agency-wide strategic plan respond to concerns we raised in prior

reports. However, until more detailed organizational and ADP systems plans are completed, it is too early to determine how the scaled-back SMP modernization projects, as well as the original SMP modernization objectives that are to be addressed in the future, relate to initiatives outlined in the strategic plan. It is also too early to determine what the total impact of the strategic plan's initiatives will be on the agency's computer systems.

The three parallel planning efforts underway will take at least 2 years to complete. Until then, SSA must rely on an interim operational ADP plan—which its consultant found to be deficient in several areas—to schedule and acquire resources, coordinate efforts, and implement ADP projects. Until SSA addresses problems identified with the interim plan, it has no assurance that its ADP initiatives over the next 2 years will be executed as effectively and efficiently as possible. Further, until the planning activities supporting the agency-wide strategic plan are further developed, it is difficult to determine what priority and resource levels should be devoted to completing the SMP projects, as well as the new initiatives.

We conducted our audit between June 1988 and August 1988 by reviewing SSA's organizational and ADP planning documents, ADP assessment status reports, and interviewing key SSA and consultant personnel regarding the plans and reports. Our review was conducted in accordance with generally accepted government auditing standards. Appendix III contains a detailed description of the objectives, scope, and methodology of our review.

Unless you publicly announce its contents earlier, we plan no further distribution of this report until 15 days from the date of this letter. At that time, we will send copies to the House and Senate Appropriations Committees; the Senate Governmental Affairs Committee; the House Government Operations Committee; the Secretary of Health and

Human Services; the Commissioner of Social Security; the Administrator, General Services Administration; the Director, Office of Management and Budget; and other interested parties upon request.

Sincerely,

Ralph V. Carlone
Director

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Abbreviations

ADP	automated data processing
GAO	General Accounting Office
IMTEC	Information Management and Technology Division
INS	Immigration and Naturalization Service
IRS	Internal Revenue Service
SMP	Systems Modernization Plan
SSA	Social Security Administration

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Request Letter

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United States Senate

COMMITTEE ON THE BUDGET
WASHINGTON, DC 20510-6100

June 7, 1988

Honorable Charles A. Bowsher
Comptroller General of the United States
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Bowsher,

Over the past six years the Social Security Administration (SSA) has attempted to modernize its computer systems. Large sums of money have been provided to SSA for this purpose. According to GAO reports, this effort has had only limited success because the agency did not adequately focus its resources on critical areas needing improvement.

In April 1988, I received a letter from the Commissioner of SSA outlining the agency's efforts to refocus its systems modernization activities. As I indicate in the attached letter I am sending to the Commissioner, I am having difficulty understanding the results of SSA's current modernization effort-the Systems Modernization Plan (SMP) -- and its relationship to the refocused modernization plan.

Therefore, I am asking GAO to initiate a review to help me better understand what has been and will be accomplished under SMP and how the SMP initiatives relate to the refocused initiatives. In particular, I would like GAO to assess the overall relationship between the SMP project and SSA's planned projects under the refocused effort. I am concerned that SSA may be proceeding with major new and costly ADP projects without completing key SMP projects -- a condition which could impede the completion of the SMP project as well as the new projects. For example, many of the "early" projects in SSA's refocused plan appear to require software development -- a critical part of SMP in which SSA has had limited success to date. Moreover, I would like GAO to thoroughly review the detailed SSA ADP plan which Appropriations report language requires SSA to prepare. Finally, I want GAO to determine if carryover of funds from FY 1988 to FY 1989 is being avoided by initiating lower priority projects in 1988.

The work requested in this letter will be important in the upcoming budget cycle and later programmatic debates. Therefore, I would appreciate as much information as GAO can possibly provide in response to this request by early August, 1988, when the House-Senate Conference Committee is scheduled to be in session. I would also appreciate it if your staff would keep the Committee informed on the progress of their work, so that I will be aware of any areas of particular concern.

I would also like to take this opportunity to express appreciation for the excellent work that your IMTEC staff has done in keeping the Committee informed of SSA's progress in implementing the SMP, as well as other issues relating to SSA's ADP budget requests and financial processes. Their reports have been of consistently high quality and always of substantial value in the Committee's deliberations and hearings. Without IMTEC staff's past help, the Committee would not have been able to make important decisions regarding SSA's ADP budget.

Sincerely,

LAWTON CHILES
Chairman
Senate Budget Committee

New Projects and Interdependent Activities Included in Agency-Wide Strategic Plan

Eighteen New Projects

Enumeration: Improve the level of service to the public while reducing work loads on SSA and the states through automation of the enumeration process (issuing social security numbers) at the time of birth.

Earnings Test:[1] Eliminate work disincentives and simplify the Social Security Program. (Currently the earnings test reduces or eliminates benefits when a retiree has earned income over the amount allowed by law.)

Computations and Benefits: Simplify the administration of the Social Security Program by reducing the number of alternative ways of computing benefits.

Telephone Service:[2] Increase the portion of SSA business conducted by telephone by providing toll-free, 24-hour, 365-day-a-year service to the public, including use of voice messaging systems. This will be accomplished by utilizing the most advanced technology to deliver a high level of service with reduced need for employee intervention.

Educating the Public: Establish a strong and ongoing information program to promote understanding and confidence in the Social Security Program.

Providing Periodic Benefit Estimates:[3] Automatically provide workers with a record of their earnings, current status, and estimated benefits on a periodic basis.

Electronic Storage and Retrieval of Documents: Utilize the electronic storage and retrieval of documents to eliminate the need for paper folders and documents and to permit immediate access to all data needed to process SSA work.

Simplifying Appeals: Simplify and improve the appeals process, and examine judicial and public criticism and respond appropriately.

[1]SSA officials have already identified these projects as needing ADP resources. ADP needs for other projects will be identified as the planning process progresses.

[2]See footnote 1.

[3]See footnote 1.

Two-Way Video in Appeals: Use two-way video in the appeals process to speed up the process, give it more credibility, and reduce hearing overhead costs.

Automated Data Exchange:[1] Establish automated interfaces with state bureaus of vital statistics, INS, IRS, and other agencies to facilitate the establishment of entitlement.

Establishing Social Security Court:[2] Establish a mechanism under which court decisions will be issued in a consistent and timely manner, thereby better serving both SSA and claimants who disagree with the Secretary's final decision.

Reducing Earnings and Retrieval of Documents: Obtain quarterly reports of earnings from the states, to eliminate or reduce the employer's reporting to both the federal and state governments.

Automatic Entitlement: Offer an ever-expanding population of workers the opportunity to validate their earnings records, examine the effects of delaying their retirement, and apply for benefits with little disruption to their daily lives.

Payment Via Electronic Funds Transfer: Develop the policy and technical support to implement electronic funds transfer as the presumed method of payment for all claims.

Exploring Expert Systems: Provide via expert systems the best agency expertise to field personnel dealing with the public, and to selected central office staff performing major reviews or making technical decisions.

Exploring Smart Cards: Issue a multiple-use social security card that would incorporate a positive personal identification in machine-readable form as well as a variety of other functions, such as electronic funds transfer, and recordkeeping for tax purposes.

SSA Management and Work Environment:[3] Maintain a well-motivated and secure work force that has the knowledge and skills needed to creatively manage new technology and meet changing customer needs.

[1]See footnote 1.

[2]This project was added to the original list of 17 projects contained in SSA's strategic plan.

[3]See footnote 1.

Institute For the Development of Social Security Service Systems: Establish an independent, nonprofit research and development organization to address SSA's need for testing, developing, and adapting new technology to SSA business processes.

Eight Interdependent Activities

Self-Service Stations: Establish the necessary data processing and communications capability to give SSA the option, by the year 2000, to install self-service stations in the district offices, personnel offices of large organizations, and—through access to commercial Automated Teller Machine (ATM) networks—in high-traffic public places such as shopping centers.

Modern Information Architecture: Implement a broad-based information architecture to permit attainment of operational objectives, while accommodating new requirements and technology quickly and efficiently.

Electronic Workstation Network: Implement an integrated electronic network to serve all of the agency's programmatic, management information, and office automation needs.

Automating Instruction and Training System: Support all training and program instruction activities with a comprehensive electronic network linked to data bases accessible through any of SSA's automated workstations.

Automating Management Information: Automate most of the information collection and processing necessary to support the management and analysis of SSA's processes.

Automating Audit Data: Implement automated audit systems to audit SSA's activities within the computer process.

Completing the Modernization Effort: Ensure that the major objectives of the 1982 SMP are achieved by 1990.

Managing Integration and Implementation of Strategic Initiatives: Develop implementation plans for each initiative and monitor progress on all plan initiatives.

Status of Systems Modernization Plan Projects

Redesign project	Status
1) Enumeration System—issues social security numbers.	Software versions 1 and 1.1 are complete. Software version 2 is being developed and is scheduled to be completed in July 1989. This project is now included in the new strategic plan.
2) Claims Modernization System—calculates and issues initial claims to beneficiaries and enhances the initial claims process.	See Program Benefits status below.
3) Program Benefits—includes claims-processing functions and makes changes to beneficiary records, such as change of address, name, and income.	Claims Modernization and Program Benefits have been combined into Program Benefits. The majority of the software is not scheduled to be redesigned until late 1990 with the remainder scheduled for late 1992. SSA has not specified the start date for redesigning the other beneficiary-related software for the Supplemental Security Income Program originally scheduled to be completed under the SMP.
4) Management Information System—provides data to manage SSA work load and automate administrative tasks.	Refocused to include several activities to automate and develop a management information system for SSA. Plans are being developed to guide these activities. This project is now included in the new strategic plan.
5) Processing Center Control System—tracks and controls paper folders containing beneficiary information.	Have finished general requirements. Detailed functional requirements scheduled for completion in October 1988. Early pilot test scheduled for 1990.
6) National Debt Management System—determines and collects overpayments.	Functional requirements are complete. Replacement of the existing Debt Management System is scheduled for June 1990.
7) Annual Wage Reporting System—posts workers' earnings.	Functional requirements and design have been performed; however, the entire project has been canceled.
8) Quality Assurance System—provides internal controls that support software development.	Currently being implemented in stages. It is scheduled for completion in September 1989.
9) Data Exchange System—communicates data to other systems.	Some of the functional requirements have been completed and some are still being developed. This project is now included in the new strategic plan.
10) Inquiry and Response System—provides beneficiary information to SSA staff.	Some segments are currently being implemented, another is scheduled to go into production in December 1988, six more are scheduled for completion in 1989, and the final segments are scheduled for completion in January 1990.

Objectives, Scope, and Methodology

In June 1988 the Chairman, Senate Budget Committee, asked that we review SSA's efforts to refocus its systems modernization activities. The Chairman asked for the review in order to better understand the results of SMP and its relationship to new projects the agency is considering. The Chairman was concerned that SSA may be proceeding with major new and costly ADP projects outlined in a 1988 agency strategic plan without completing key SMP projects—a condition that could impede the completion of the SMP projects as well as the new projects. The Chairman also requested a review of the detailed ADP plan required by the 1987 Senate Appropriations report.

As agreed with the Chairman's office, we focused our review on determining (1) the status of two key areas of the SMP—software redesign and data base integration—and how these areas will be addressed in the future, (2) the relationship between these key areas of SMP and new projects included in SSA's recently announced agency strategic plan, and (3) the impact the strategic plan's new projects may have on the agency's computer systems. At the time of our review, SSA had not yet completed the detailed automated data processing plan required by the 1987 Senate Appropriations report; thus, we could not address the Committee's request to determine the adequacy of the plan.

To update the progress of the SMP projects, we discussed the progress made in the areas of software redesign and data base integration with SSA officials in charge of these projects. In addition, we analyzed existing SSA documents such as software redesign schedules, system baseline documents, and SSA's ADP project plans to assess current schedules for completing and implementing software and data base integration projects.

To assess the relationship between the incomplete SMP projects and SSA's refocused effort, we interviewed SSA officials who are primarily responsible for developing and coordinating the agency-wide planning process for SSA's agency strategic plan to review whether (1) requirements for computer resources were being analyzed for individual early projects outlined in the plan, (2) the status of SMP projects was being considered in planning for required computer resources, and (3) an agency-wide plan existed to guide development of SSA's computer systems during implementation of the refocus effort.

In addition, we examined reports from SSA's integration and management contractor on (1) the computer systems planning process, (2) the software development process, (3) the integrated data base, and (4) an

early assessment of planning for the refocus efforts. We also interviewed SSA's Integration and Management Contractor to discuss progress and problems at SSA in developing a modern computer environment. We were briefed by SSA officials, including SSA's Senior Executive Officer, the Associate Commissioner for the Office of Systems Integration, and the Acting Associate Deputy Commissioner for Systems Support. They briefed us on SSA's response to the agency's integration and management contractor's report recommendations. These officials further described their plans for the 18 new projects outlined in the agency strategic plan, and for relating the 18 new projects to the SMP software redesign and data base integration projects. We spoke with a contract officer at the National Academy of Science to understand the work the Academy was to perform for SSA in reviewing SMP and making managerial and technical suggestions for implementing the refocused efforts. We also consulted an American Airlines official to see how another organization that relies heavily on on-line computer operations evaluated SSA's on-line computer operations.

We conducted our work at SSA headquarters in Baltimore, Maryland, from June through August 1988. Views of responsible SSA officials were obtained during the course of our work and are incorporated where appropriate. Our work was performed in accordance with generally accepted government auditing standards.

U.S. G.P.O. 1988-201-749:80273

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